

# **APPENDIX G**

## **CONNECTICUT RIVER WAITS**

### **RIVER TO WHITE RIVER WATERSHED**

(HUC8: 01080104)

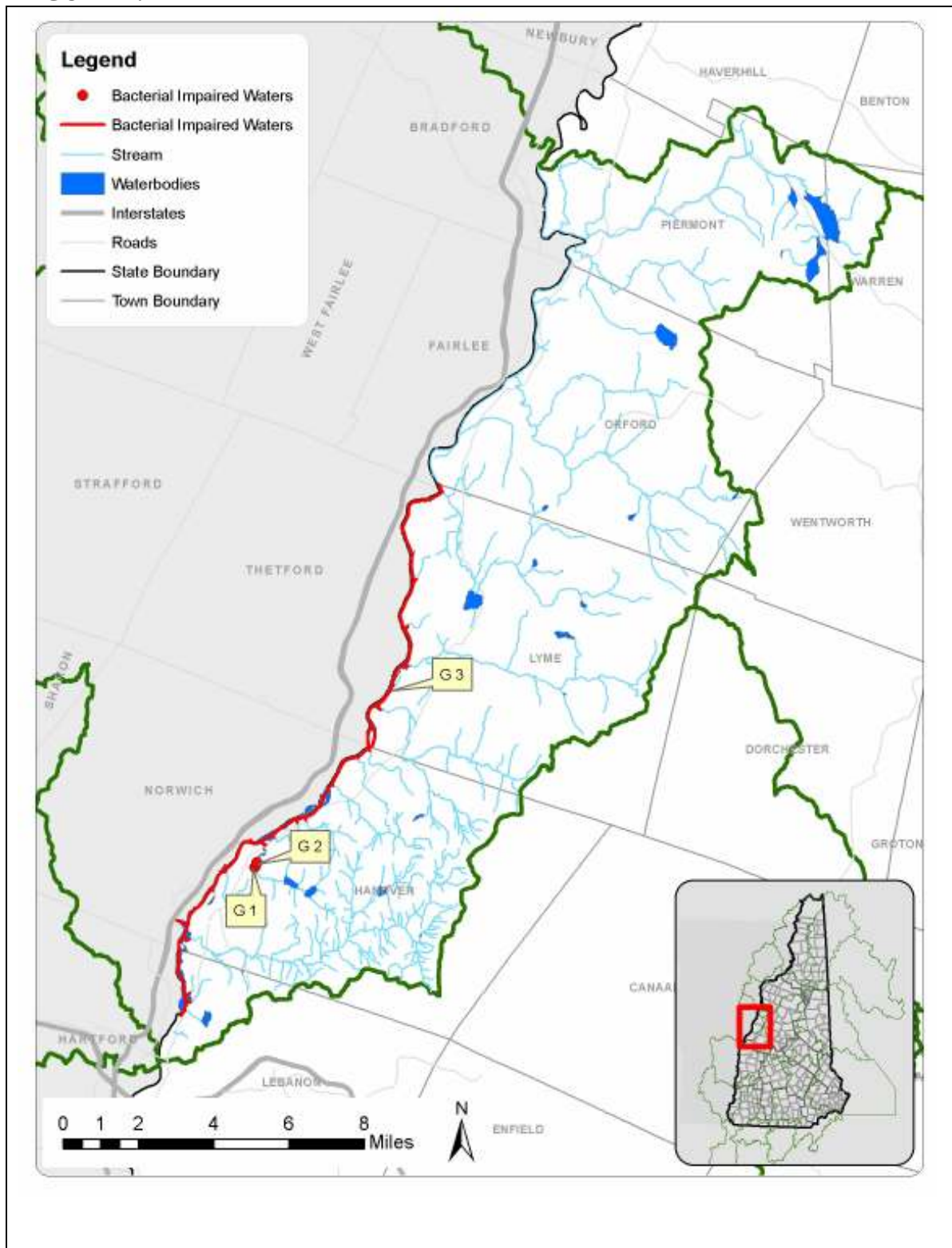
#### **I. WATERSHED DESCRIPTION AND MAPS**

This section of the Connecticut River Watershed covers an area of approximately 225 square miles centered along the Vermont-New Hampshire border. There are 8 towns located at least partially within the watershed which are, from north to south: Haverhill, Piermont, Warren, Orford, Wentworth, Lyme, Hanover, and Lebanon. As shown in Figure 1, the primary watercourse in the region is the Connecticut River which flows south from Piermont to Lebanon, NH along the VT-NH border. The watershed is 29.4 miles long by 12.3 miles wide at its widest point. Notable mountains in the area include the Moose Mountains along the eastern border and other independent landforms. Lake Tarleton is the largest waterbody, located in the northeast section of the watershed.

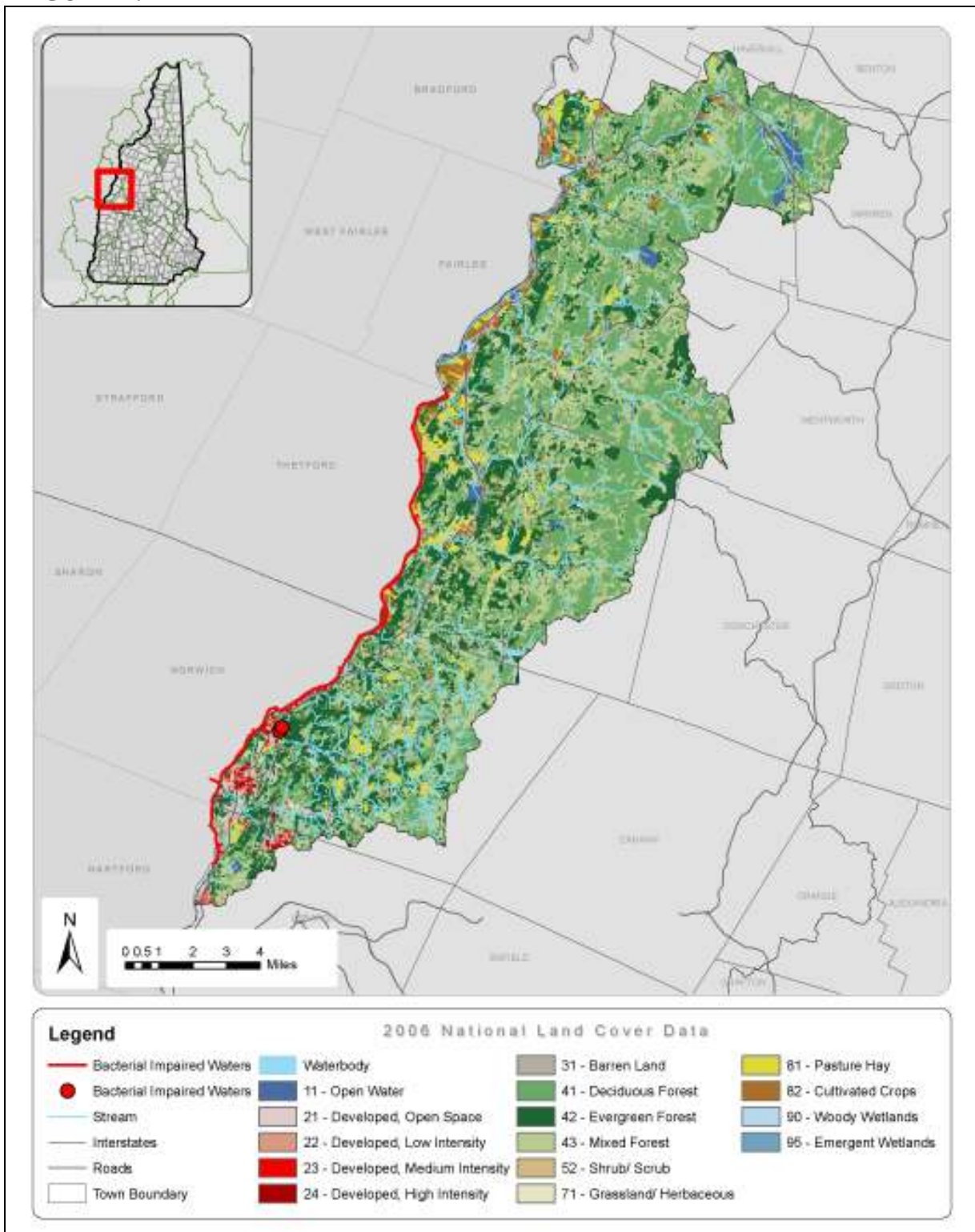
The watershed consists of 80% forested land cover. A portion of the forest is conserved and protected as part of the White Mountain National Forest, smaller state parks, and the Appalachian Trail forested corridor which forms part of the eastern boundary of the watershed. Developed and disturbed land identified on the following land cover map (Figure 2) is concentrated in the urban area of Lebanon and along major roadways. Development accounts for 3% of watershed area while agriculture accounts for 8%, primarily found along the western state border.

Based on the 2010 303(d) list, three assessment units (AUs) in this watershed are listed as being impaired for bacteria. The location of the bacteria impaired surface water AUs are shown on Figure 1 as red circles and a red line. Items G1 through G3 present the percent reduction needed to meet each water quality criterion (and TMDL), based on the highest recorded bacteria measurement that exceeds the criterion for the AU, as well as the bacteria data collected in the impaired AUID that was used to list the AU as impaired on the 2010 303(d) list.

FIGURE 1:



**FIGURE 2:**



## II. WATER QUALITY DATA TABLES

### TABLE OF CONTENTS

---

---

G1: STORRS POND RECREATION AREA BEACH.....	5
G2: STORRS POND ADULT BEACH.....	7
G3: WILDER LAKE.....	9

## G1: Storrs Pond – Recreation Area Beach

AUID NHLAK801040402-02-02

**Characteristics:** freshwater, class B designation, designated beach, primary contact recreation.

**Impairment:** *E coli*

**Water Quality Criteria & TMDL for *E coli***

Single sample: 88 CTS/100Ml

Geometric mean: 47 CTS/100Ml

**Percent reduction to meet TMDL:**

Single sample: 58%

Geometric mean: in compliance

**Data:** 1999- 2009 (inclusive) from NH DES, 2010 TMDL cycle

### Single sample *E coli* results (CTS/100ML)

Station Name	Station ID	Date	Result
STORRS POND- RECREATION AREA BEACH	BCHRECHNVLF	7/12/1999	0.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVLF	8/19/1999	4.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVLF	7/17/2000	7.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVLF	8/14/2000	8.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVLF	7/17/2001	2.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVLF	8/15/2001	2.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVLF	7/11/2002	2.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVLF	8/26/2002	16.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVLF	7/14/2003	1.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVLF	8/5/2003	4.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVLF	7/12/2004	1.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVLF	8/2/2004	8.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVLF	8/19/2004	8.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVLF	6/20/2005	18.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVLF	7/7/2005	4.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVLF	7/27/2005	4.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVLF	8/18/2005	4.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVLF	7/13/2006	48.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVLF	8/1/2006	20.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVLF	8/22/2006	16.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVLF	6/25/2007	0.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVLF	7/16/2007	2.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVLF	8/2/2007	1.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVLF	7/10/2008	4.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVLF	7/22/2008	8.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVLF	8/18/2008	0.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVLF	7/8/2009	8.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVLF	7/10/2009	170.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVLF	7/13/2009	130.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVLF	7/15/2009	14.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVLF	8/4/2009	120.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVLF	8/6/2009	14.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVLF	8/27/2009	1.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVRT	7/12/1999	0.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVRT	8/19/1999	2.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVRT	7/17/2000	3.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVRT	8/14/2000	4.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVRT	7/17/2001	0.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVRT	8/15/2001	1.0

STORRS POND- RECREATION AREA BEACH	BCHRECHNVRT	7/11/2002	2.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVRT	8/26/2002	7.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVRT	7/14/2003	4.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVRT	8/5/2003	4.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVRT	7/12/2004	1.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVRT	8/2/2004	1.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVRT	8/19/2004	6.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVRT	6/20/2005	22.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVRT	6/23/2005	10.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVRT	7/7/2005	28.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVRT	7/27/2005	1.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVRT	8/18/2005	4.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVRT	7/13/2006	26.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVRT	8/1/2006	24.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVRT	8/22/2006	4.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVRT	6/25/2007	1.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVRT	7/16/2007	1.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVRT	8/2/2007	1.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVRT	7/10/2008	22.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVRT	7/22/2008	18.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVRT	8/18/2008	1.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVRT	7/8/2009	20.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVRT	7/10/2009	210.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVRT	7/13/2009	98.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVRT	7/15/2009	30.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVRT	8/4/2009	56.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVRT	8/6/2009	10.0
STORRS POND- RECREATION AREA BEACH	BCHRECHNVRT	8/27/2009	10.0

Shaded cells indicate exceedance of water quality criteria

**Geometric mean *E. coli* results (CTS/100ML)**

<b>Station Name</b>	<b>Date</b>	<b>Result</b>
STORRS POND- RECREATION AREA BEACH	8/19/1999	3.8
STORRS POND- RECREATION AREA BEACH	8/14/2000	5.1
STORRS POND- RECREATION AREA BEACH	8/15/2001	2.1
STORRS POND- RECREATION AREA BEACH	8/26/2002	4.6
STORRS POND- RECREATION AREA BEACH	8/5/2003	2.8
STORRS POND- RECREATION AREA BEACH	8/19/2004	2.7
STORRS POND- RECREATION AREA BEACH	8/18/2005	6.7
STORRS POND- RECREATION AREA BEACH	8/22/2006	18.4
STORRS POND- RECREATION AREA BEACH	8/2/2007	1.5
STORRS POND- RECREATION AREA BEACH	8/18/2008	6.3
STORRS POND- RECREATION AREA BEACH	8/27/2009	28.9

## G2: Storrs Pond –Adult Beach

**AUID** NHLAK801040402-02-02

**Characteristics:** freshwater, class B designation, designated beach, primary contact recreation.

**Impairment:** *E coli*

### **Water Quality Criteria & TMDL for *E coli***

Single sample: 88 CTS/100Ml

Geometric mean: 47 CTS/100Ml

### **Percent reduction to meet TMDL:**

Single sample: 32%

Geometric mean: in compliance

**Data:** 1999- 2009 (inclusive) from NH DES, 2010 TMDL cycle

#### **Single sample *E coli* results (CTS/100ML)**

<b>Station Name</b>	<b>Station ID</b>	<b>Date</b>	<b>Result</b>
STORRS POND- ADULT BEACH	BCHADBHNVLF	7/22/2008	14.0
STORRS POND- ADULT BEACH	BCHADBHNVLF	8/18/2008	1.0
STORRS POND- ADULT BEACH	BCHADBHNVLF	7/8/2009	130.0
STORRS POND- ADULT BEACH	BCHADBHNVLF	7/13/2009	66.0
STORRS POND- ADULT BEACH	BCHADBHNVLF	8/4/2009	110.0
STORRS POND- ADULT BEACH	BCHADBHNVLF	8/6/2009	84.0
STORRS POND- ADULT BEACH	BCHADBHNVLF	8/10/2009	12.0
STORRS POND- ADULT BEACH	BCHADBHNVLF	8/27/2009	2.0
STORRS POND- ADULT BEACH	BCHADBHNVRT	8/15/2001	0.0
STORRS POND- ADULT BEACH	BCHADBHNVRT	7/11/2002	8.0
STORRS POND- ADULT BEACH	BCHADBHNVRT	7/14/2003	1.0
STORRS POND- ADULT BEACH	BCHADBHNVRT	8/5/2003	4.0
STORRS POND- ADULT BEACH	BCHADBHNVRT	7/12/2004	2.0
STORRS POND- ADULT BEACH	BCHADBHNVRT	8/2/2004	6.0
STORRS POND- ADULT BEACH	BCHADBHNVRT	8/19/2004	1.0
STORRS POND- ADULT BEACH	BCHADBHNVRT	6/20/2005	4.0
STORRS POND- ADULT BEACH	BCHADBHNVRT	7/7/2005	4.0
STORRS POND- ADULT BEACH	BCHADBHNVRT	7/27/2005	1.0
STORRS POND- ADULT BEACH	BCHADBHNVRT	8/18/2005	2.0
STORRS POND- ADULT BEACH	BCHADBHNVRT	7/13/2006	60.0
STORRS POND- ADULT BEACH	BCHADBHNVRT	8/1/2006	18.0
STORRS POND- ADULT BEACH	BCHADBHNVRT	8/22/2006	16.0
STORRS POND- ADULT BEACH	BCHADBHNVRT	7/16/2007	1.0
STORRS POND- ADULT BEACH	BCHADBHNVRT	8/2/2007	1.0
STORRS POND- ADULT BEACH	BCHADBHNVRT	7/10/2008	46.0
STORRS POND- ADULT BEACH	BCHADBHNVRT	7/22/2008	28.0
STORRS POND- ADULT BEACH	BCHADBHNVRT	8/18/2008	12.0
STORRS POND- ADULT BEACH	BCHADBHNVRT	7/8/2009	48.0
STORRS POND- ADULT BEACH	BCHADBHNVRT	7/13/2009	82.0
STORRS POND- ADULT BEACH	BCHADBHNVRT	8/4/2009	86.0
STORRS POND- ADULT BEACH	BCHADBHNVRT	8/6/2009	110.0
STORRS POND- ADULT BEACH	BCHADBHNVRT	8/10/2009	12.0
STORRS POND- ADULT BEACH	BCHADBHNVRT	8/27/2009	2.0

Shaded cells indicate exceedance of water quality criteria

**Geometric mean *E. coli* results (CTS/100ML)**

<b>Station Name</b>	<b>Date</b>	<b>Result</b>
STORRS POND- ADULT BEACH	8/5/2003	2.6
STORRS POND- ADULT BEACH	8/19/2004	3.8
STORRS POND- ADULT BEACH	8/18/2005	3.0
STORRS POND- ADULT BEACH	8/22/2006	30.7
STORRS POND- ADULT BEACH	8/2/2007	1.4
STORRS POND- ADULT BEACH	8/18/2008	11.7
STORRS POND- ADULT BEACH	8/27/2009	33.1



### G3:Wilder Lake

**AUID** NHLAK801040402-03

**Characteristics:** freshwater, class B designation, primary contact recreation.

**Impairment:** *E coli*

#### **Water Quality Criteria & TMDL for *E coli***

Single sample: 406 CTS/100ML

Geometric mean: 126 CTS/100mL

#### **Percent reduction to meet TMDL:**

Single sample: 22%

Geometric mean: 24%

**Data:** 2000 - 2009 (inclusive) from NH DES, 2010 TMDL cycle

#### **Single sample *E coli* results (CTS/100ML)**

<b>Station Name</b>	<b>Station ID</b>	<b>Date</b>	<b>Result</b>
WILDER LAKE	01-CMP	6/23/2005	40.0
WILDER LAKE	30-CNT	6/21/2000	10.0
WILDER LAKE	30-CNT	7/31/2000	50.0
WILDER LAKE	30-CNT	8/18/2000	5.0
WILDER LAKE	30-CNT	6/1/2004	30.0
WILDER LAKE	30-CNT	7/28/2004	20.0
WILDER LAKE	30-CNT	8/3/2004	5.0
WILDER LAKE	30-CNT	8/18/2004	10.0
WILDER LAKE	30-CNT	9/13/2004	90.0
WILDER LAKE	30-CNT	6/23/2005	40.0
WILDER LAKE	33-CNT	6/23/2005	70.0
WILDER LAKE	NHA7	7/25/2008	188.0
WILDER LAKE	NHA7	8/7/2008	520.0
WILDER LAKE	NHA7	8/21/2008	46.0
WILDER LAKE	NHA7	6/22/2009	230.0
WILDER LAKE	NHA7	7/9/2009	36.0
WILDER LAKE	NHA7	7/16/2009	96.0
WILDER LAKE	NHA7	7/23/2009	24.0
WILDER LAKE	NHA7	7/30/2009	146.0
WILDER LAKE	NHA7	8/8/2009	46.0
WILDER LAKE	NHA7	8/20/2009	12.0
WILDER LAKE	NHA7	9/3/2009	4.0
WILDER LAKE	NHA7	9/10/2009	4.0
WILDER LAKE	NHA7	9/18/2008	30.0

#### **Geometric mean *E. coli* results (CTS/100ML)**

<b>Station Name</b>	<b>Date</b>	<b>Result</b>
WILDER LAKE	8/18/2000	13.6
WILDER LAKE	9/13/2004	17.3
WILDER LAKE	8/21/2008	165.1
WILDER LAKE	8/20/2009	55.1
WILDER LAKE	9/3/2009	30.9
WILDER LAKE	9/10/2009	22.6
WILDER LAKE	9/16/2008	107.8

Shaded cells indicate exceedance of water quality criteria